

CLAIMS

What is claimed is:

- 5 1. A method for executing a computer program having source code on a target computer platform having a memory, the method comprising the steps of:
 - defining a plurality of program objects for the computer program;
 - placing a first plurality of directives in the source code to divide the computer program into the program objects, whereby an annotated computer program is produced;
 - 10 processing the annotated computer program to generate a description for each of the program objects;
 - allocating the program objects to fixed locations in the memory of the target computer platform;
 - porting the annotated computer program to the target computer platform;
 - generating an executable image of the annotated computer program, wherein the executable
 - 15 image is configured for execution on the target computer platform; and
 - executing the executable image on the target computer platform.
- 20 2. The method according to claim 1, wherein in the step of defining a plurality of program objects, the program objects comprise executable code, constant data, and volatile data.
- 25 3. The method according to claim 1 further comprising the step of estimating a typical usage for each of the program objects.
4. The method according to claim 1 further comprising the step of designating each of the program objects as one of (a) a static program object and (b) an overlay program object.
5. The method according to claim 1, wherein the step of porting the annotated computer program further comprises binding each of the directives to an object management system of the target computer platform.
- 30 6. The method according to claim 1 further comprising the step of placing a second plurality of directives in the source code to indicate linkages between program objects.
7. The method according to claim 1 further comprising the step of:

identifying a plurality of natural application boundaries in the source code; and
wherein the step of placing a first plurality of directives further comprises placing the first plurality of directives in the source code at the natural application boundaries.

- 5 The method according to claim 1, wherein in the step of defining a plurality of program objects, each of the program objects has a unique name

9. A computer program product embodied on a first computer for facilitating the execution of a computer program having source code on a second computer having a memory, the computer

- 10 program product comprising:

a compiler code segment comprising computer readable program code configured to cause the first computer to perform the steps of :

defining a plurality of program objects for the computer program; and

- 15 placing a first plurality of directives in the source code to divide the computer program into the program objects, whereby an annotated computer program is produced;

an extraction code segment comprising computer readable program code configured to cause the first computer to process the annotated computer program to generate a description for each of the program objects;

- 20 an object allocation code segment comprising computer readable program code configured to cause the first computer to allocate the program objects to fixed locations in the memory of the second computer;

a porting code segment comprising computer readable program code configured to cause the first computer to port the annotated computer program to the second computer; and

- 25 a merging code segment comprising computer readable program code configured to cause the first computer to generate an executable image of the annotated computer program, wherein the executable image is configured for execution on the second computer.

10. The computer program product of claim 9 further comprising a test code segment comprising computer readable program code configured to cause the first computer to estimate a
30 typical usage for each of the program objects.